

# Danthonia



Volume 7 Number-2 January 1999

NEWSLETTER OF THE AUSTRALIAN NETWORK FOR PLANT CONSERVATION INC.

# A Message from the First President of the ANPC Inc.

Kingsley Dixon, President, ANPC, and Assistant Director, Science, Kings Park and Botanic Garden, Perth

Welcome to 1999 and the new look ANPC as the organisation wends its way towards new horizons since its recent incorporation.

As recommended by the **Endangered Species Advisory** Committee review, the ANPC is now standing as an independent and vital body in the conservation of the plant life of Australia. Few will argue that the role of the ANPC is crucial as we struggle collectively to come to grips, (and to grief!) with the daunting prospects posed by plant conservation on this continent. Each week stories of dire consequences pass my desk about the decline or extirpation of plants and now ecosystems. Living as I do in Western Australia, the challenge of species on the brink is sadly an inevitable part of the life of most botanists or biologists. The role of the ANPC is therefore part

of the whole approach that we need to adopt if we as a nation are to enter the next millenium with consensus and purpose in reversing the decline in our biological diversity.

The new ANPC Inc. will be unfolding over the next months as the new executive begins working on the structural and functional aspects of the organisation. The line-up of the executive presents a rare combination of technical, professional, academic and grassroots experience. Community support for the Network has been strengthened and will be a cornerstone of the new organisational structure and focus. This diversity ensures that the ANPC will always remain focused on its core mission — to conserve and replenish plant life in Australia.

I hope you share with me a sense of optimism and purpose as together we forge a new alliance for plant conservation. Your continued support for the ANPC remains the life blood of the organisation as we reach out to the next century and beyond.

#### In this issue

National Coordinator's Report	3
Reports on the ANPC Plant Conservation	6
Techniques Course, December 1998, Hobart	
ANZECC Working Group on Nature	8
Conservation on Private Land	
The ANPC Internet Directory of Plant	11
Conservation Resources	
Recent Listing of a "New" Endangered	12
Species of Eucalypt in Sydney	
First Ecological Community Listed as Endangered	13
Report on the Course 'Establishing a Seed-based	16
Genebank for Conservation'	
Surviving in the Cemeteries — A New Era	18
in Conservation	
Regular features	
Regional Group Reports	22
Conferences and Other Diary Dates	14
Electronic Addresses	15
Publications	20

#### Danthonia

Danthonia is produced by the Australian Network for Plant Conservation Inc. and published with assistance from the Australian National Botanic Gardens.

ISSN 1039-6500

Coordinating Editor Deborah Edwards

Editorial Panel

Deborah Edwards, Jeanette Mill

For membership details, please contact the ANPC Inc.

**GPO Box 1777** Canberra ACT 2601 Australia

Telephone: 02 6250 9509;

Fax: 02 6250 9599;

Email: anpc@anbg.gov.au

Website:

http://www.anbg.gov.au/anpc

#### National Office Staff

National Coordinator **Jeanette Mill** 

Editorial and Other Services Deborah Edwards

Volunteer (memberships etc) Debbie Reynolds

#### ANPC Inc. Committee

President

Dr Kingsley Dixon

Vice President

Dr David Given

Treasurer

Vacant

Secretary

Paul Scannell

Ordinary Committee members

Professor Henry Nix Mark Richardson Stephen Harris Louise Bull Tracey Armstrong **Bob Makinson** John Zwar



#### **Next Deadline**

We welcome articles and information from members. It's a great way for us all to keep in touch and to tell others about all the work that's going on out there. So please send it all in and keep the networking going! Deadline for the March 1999 issue of the newsletter is 19 February 1999. Please send typed copy, no more than two A4 pages, to Deborah Edwards by fax, mail or email. If sending by email, please send in the body of the text or as a Word 6 attachment to: deborah.edwards@ea.gov.au. Illustrations are always needed too, in the form of clear photographs, slides or drawings.

Opinions expressed in this publication are those of the authors and are not necessarily those of the publisher. Material presented in Danthonia may be copied for personal use or published for educational purposes provided that any extracts are fully acknowledged. Where an article is acknowledged from another publication, please contact that journal for permission to reprint.

#### **National Coordinator's Report**

Jeanette Mill

ANPC's International Achievements

#### Incorporation

Members have voted overwhelmingly in favour of adoption of the new ANPC Inc. Constitution—109 for, one against.

Thank you to members for your tremendous response to this important issue.

Ten nominations have been received for positions on the inaugural ANPC Inc. Committee, and as nominations do not exceed positions, all nominees are now elected. The position of Treasurer is currently vacant, so further nominations will be accepted for this position.

#### Inaugural ANPC Inc. Committee

EXECUTIVE

President — Dr Kingsley Dixon, Kings Park and Botanic Gardens, WA.

Vice President — Dr David Given, individual member, New Zealand.

Secretary — Paul Scannell, Albury Botanic Gardens and Coordinator, ANPC NSW South West Slopes Region.

Treasurer — Vacant.

National Coordinator ex-officio — Jeanette Mill.

#### **ORDINARY MEMBERS**

Tracey Armstrong, Royal Botanic Gardens, Sydney and Coordinator, ANPC Sydney Region Group.

Louise Bull, Greening Australia, Riverina, Vic./NSW.

Stephen Harris, Tasmanian Parks & Wildlife Service, Tas.

Bob Makinson, individual member, ACT. Professor Henry Nix, individual member, ACT. Mark Richardson, Alice Springs Desert Park, NT. John Zwar, WMC Olympic Dam Corporation, SA.

All elected Committee positions are for a term of two years, and the President, Dr Kingsley Dixon, has elected to occupy the position for one year.

As Assistant Director, Science, at Kings Park and Botanic Garden, Kingsley runs an internationally recognised plant conservation program. An inaugural President's report is included on the front page of this edition of *Danthonia*.

The Vice-President, David Given, is based in

New Zealand, creating a concrete trans-Tasman link, one which New Zealand members of ANPC have consistently requested As David Gardens holds such distinguished positions as Chair of erbarium the Plant Conservation Subcommittee of the IUCN Species Survival Commission, ANPC's position internationally will be further consolidated.

Paul Scannell, Secretary of the Committee, is Curator at Albury Botanic Gardens, and voluntary Regional Coordinator of the ANPC NSW South West Slopes Regional Group. Paul is very active in the local plant conservation scene around Albury/Wodonga, and is also spearheading the hosting of the Fourth ANPC National Conference in the region in November 1999.

All Executive Committee members have been long term and very strong supporters of the ANPC, and will be an enormous asset in their new positions.

The Committee in general represents the broad cross-section of ANPC membership geographically (nominations for the remaining Committee position from Qld and Victorian members are particularly encouraged), from an international to a local level, and across community, government and industry.

An application for incorporation has been accepted by the Registrar-General in the ACT, and the ANPC is now officially an incorporated association!



(continued from page 3)

I would like to thank the ANPC Incorporation Committee for its hard work in bringing the ANPC to this point. It has been at times a thankless task, and hopefully the rewards for the organisation will reflect the efforts of the Committee.

The future role of the Advisory Committee will be discussed by the new ANPC Inc.
Committee. There is carryover from the Advisory Committee to the new Committee, creating continuity, which will ensure a smooth transition. I would also like to thank the Advisory Committee for its efforts in guiding the ANPC over the seven years since its inception.

This is an exciting phase in the development of the ANPC, and I welcome aboard all those who have put themselves forward to join the Committee and take the ANPC to new heights.

### ANPC Plant Conservation Techniques Course goes International

The second ANPC Plant Conservation Techniques Course was a great success. The course was hosted by Parks and Wildlife Service (PWS), Tasmania, and held at the Education Centre of the Royal Tasmanian Botanical Gardens (RTBG), from 30 November to 7 December. The limit of 25 participants was met within weeks of the publicity brochure being produced. Participants represented a wide range of plant conservation practitioners and interested individuals including teachers, a farmer, members of community groups such as Landcare, Bushcare facilitators, botanists, Forestry Conservation Planners, and international participants from Hong Kong and New Zealand.

Topics ranged from biodiversity and causes of rarity, through accessing and gathering information, to habitat management and threat abatement.

The practical activities were particularly enjoyed, and included:

- surveying the rare Allocasuarina dinosaurensis
   (the group split into two for this, and the two
   groups came up with results close enough to
   be within the normal bounds of error);
- a smoke germination demonstration by RTBG and PWS staff; and
- education workshops which resulted in some hilarious outcomes.



Survey techniques. Photograph by Jeanette Mill.

A field trip to Freycinet National Park and points in between gave a first hand view of conservation issues such as control of *Phytophthora* in reserves, and the dilemmas of management of a small remnant with two threatened plant species with different requirements. The trip finished on a high note at the Campbell Town golf course, where several threatened orchid species are surviving on the roughs, thanks to the care and interest of the golf course managers.

Further offers/suggestions have been received to run the course in North Queensland, Western Australia and New Zealand.

Votes of thanks go to Parks and Wildlife Service Tasmania for hosting the course, and in particular Andrew Smith, Steve Harris and Stephen Johnston for their huge organisational efforts. Also to Royal Tasmanian Botanical Gardens for supplying the beautiful venue and WildCARE and the Australian National Botanic Gardens for financial sponsorship. Thanks also to Maria Matthes for assistance with curriculum review, and the 24 presenters, drawn from Australia and internationally, who provided a stimulating range of talks, workshops, demonstrations and field trips. Dr David Given, Chair, IUCN Species Survival Commission Plant Conservation Subcommittee and Mark Richardson, Curator of Botany at Alice Springs Desert Park, both donated their time to stay for most of the course, providing an invaluable source of ready expertise.

It is only by the generosity of members contributing huge amounts of in-kind support that the ANPC is able to successfully undertake such activities as these training courses, and the value of bringing accurate information about plant conservation to such a range of front-line practitioners is inestimable.



From left to right: David Galbraith, CBCN; Timothy Walker, PlantNet UK; Stephen Forbes, RBG Sydney; Wendy Strahm, Plants Officer, SSC, IUCN; Mike Maunder, Head, Conservation Unit RBG Kew, at the BGCI Congress.

Photograph by Jeanette Mill.



Jeanette Mill, ANPC National Coordinator, and Christopher Willis, SABONET Coordinator sign the MOU between the two organisations at the Congress dinner. Photograph supplied by Christopher Willis.

#### (continued from page 4)

Participants commented that the networks they formed in the course of the week, such as those with leading plant conservationists, were as valuable to their ongoing work as the information they gleaned. My final vote of thanks goes to the participants for being such a lively, interested, motivated and fun group.

#### More International Achievements

Thanks to generous financial support from Prof Henry Nix, I had the privilege of representing the ANPC at two international meetings in South Africa in September — the Fifth International Botanic Gardens Conservation Congress and the Sixth meeting of the Plant Conservation Subcommittee of the IUCN Species Survival Commission (SSC). The latter was in my capacity as the Chair of the SSC Australasian Plant Specialist Group.

At the BGCI Congress I co-convened a workshop on Network Development and Collaboration in the Conservation Practice stream with Edelmira Linares of the Mexican National University (UNAM) and Brien Meilleur of the Center for Plant Conservation (CPC USA). I also presented a paper on the development of the ANPC. Other talks in the session discussed networks from the USA, Italy, Southern Africa and South America. Following the workshop was a series of geographically-based network meetings, and I co-convened a joint North America/Australia meeting with Brien Meilleur (CPC) and David Galbraith of the Canadian Botanical Conservation Network (CBCN).

International recognition of the ANPC is very high, and the ANPC was raised several times in



Left to right: Khayakazi Mngxuma (student), Pumla Mrubata (Outreach Program Coordinator) and Nophathile Feketha (parent) gave a moving speech at the Congress about Kirstenbosch's Outreach Program to green the schools of the Cape Flats, providing training and employment for local residents. Photograph by Jeanette Mill.

the course of the conference as a model network, due to the integration of all stakeholders.

The vital role of plant conservation networks worldwide led to the recommendation that network creation and development internationally needed to be a priority of the new World Botanic Gardens Conservation agenda, which will flow from the conference.



From left to right: David Galbraith, CBCN; Edelmira Linares, UNAM Mexico; Jeanette Mill; Brien Meilleur, CPC.
Photograph by Jeanette Mill.

#### (continued from page 5)

Other resolutions included: that networks collaborate on a network section of the new world conservation agenda; that the Agenda should strongly focus on integration of stakeholders to ensure maximum relevance (a recommendation based largely on recognition of the ANPC model); that network creation and development be encouraged, including fostering of new networks by existing ones through a "network of networks".

The full set of conference recommendations will be linked to the ANPC website, or can be obtained in hard copy by contacting the ANPC National Office.

Dr Kingsley Dixon was one of the keynote speakers at the Congress. Several papers addressed the issue of restoration ecology, including a paper by Dr Stephen Hopper. This latter area is one I have long believed should be more thoroughly integrated with conservation of threatened species.

Mike Maunder, Head of the Conservation Unit at Royal Botanic Gardens, Kew has invited me to write a chapter on the role of a national network for plant conservation for the Darwin Plant Conservation Manual for the Tropics.

The Memorandum of Understanding between the Southern African Botanical Diversity Network (SABONET) and the ANPC was signed by SABONET Coordinator, Christopher Willis, and myself at the farewell dinner.

Invitations were received from Dr Dedy Darnaedi, Director of the Indonesian Botanical Garden and Steve Benham of New Zealand, for ANPC to continue to assist with development of networks in those countries.

The main focus of the three day SSC Plant Conservation Subcommittee (PCS) meeting was forming an input into the new SSC strategic plan. This was an intensive exercise resulting in a set of recommended outcomes covering policy, conservation practice, education and training, building of knowledge and capacity, equity and development issues.

Craig Hilton-Taylor, currently with the National Botanical Institute in South Africa, and author of the *Red Data List of Southern African Plants*, is the new Red List Officer with IUCN. As Craig is a botanist, this was seen by the PCS as a positive step for plant conservation. I held discussions with Craig regarding the establishment of a plant conservation network similar to ANPC in Southern Africa. A survey based on that conducted by the ANPC for the compilation of the National Endangered Flora Collection has been conducted in South Africa.

Strategies for linking plant and animal conservation activity are being considered by the PCS, and this is also a suggested theme of the next ANPC conference. Other interesting parallels are the development of regionally based rather than taxonomic specialist groups.

My best wishes to everyone for the new year, and I look forward to working with the new ANPC Inc!

#### Reports on the ANPC Plant Conservation Techniques Course, December 1998, Hobart

Els Hayward, ANPC Member and Conservationist

The National Plant Conservation Techniques Course which was held in Hobart early in December 1998 was an exciting 8 days filled with information and stimulation.

The people who attended the course themselves contributed hugely to its success, swapping ideas and experiences from New Zealand, Queensland, Central Australia, Canberra and Hong Kong as well as all corners of Tasmania including King and Flinders Islands.



Phytophthora threatens plants in a reserve, and poses a challenge to land managers. Photograph by Jeanette Mill.

#### (continued from page 6)

David Given from New Zealand, with 20 years of experience as a government botanist, consultant and author, gave a brilliant opening talk on the history and importance of conservation worldwide. He kept us aware of the world picture throughout the course. I particularly loved the prophetic quote from Aldo Leopold: "The first rule of tinkering is to keep all the parts." But most importantly, David felt that local people are the key to biodiversity conservation.

David Keith took us out onto the Queens Domain and divided us into groups to count the trees and then to compare notes. This was fun and an opportunity to get to know each other better.

Throughout the course, many of those who work in the field of plant conservation in Tasmania gave us an insight into their methods, their problems and the progress of their work. These were Professor Jamie Kirkpatrick, his colleagues at the University of Tasmania, Dr Stephen Harris and members of his team from Parks and Wildlife, Ian Marmion and his team from Bushcare, representatives from Greening Australia and the Understorey Network.

Before his talk on germplasm, Mark Richardson from the new Desert Park at Alice Springs was given the best introduction by Jeanette Mill.

"Professor Sir Mark Richardson will now give us the Gospel According to Saint Mark. Is that enough or should I polish your halo?"

Mark also gave a presentation on the Desert Park and explained how it combines plants and animals to depict their unique ecosystems.

Visiting various sites for plant conservation on the weekend was a wonderful way to finish on such a practical note and the very last day was used to evaluate the course generally and to finish off the workshops which were held between speakers. Had we learnt something? Is there anything we can do to change the world other than continue with what we do already? I think we all agreed that the greatest benefit of the course was the opportunity to network.

By offering such courses, the ANPC is directly contributing to plant conservation. By bringing people together to be more informed; to give



Dr David Given and Wayne Griggs examine smoked water used in promoting germination.

Photograph by Jeanette Mill.

each other mutual support, to share knowledge and experience and to be inspired to continue with the difficult task of plant conservation, the course was invaluable.

So thank you to Andrew Smith for offering to hold the course in Tasmania and to him and Jeanette for making it all happen!

#### Kate Bennetts, Student and Community Member, Tasmania

Where to start to explain the enrichment I received from the 1998 Plant Conservation Techniques Course?

Having only recently finished my BSc in Botany and Ecology, I feel I gained different, possibly more, benefits than others who already work in the plant conservation field. As I am at the beginning of my career I really appreciated the overview of what is available and happening within the plant conservation scene, especially indications of where and what roles are played and paid for. I suspect this is something many recent graduates probably want but rarely find in such a short period of time.

I was really excited to hear that many ideas of conservation that I had only wondered upon were possible and actually up and running. Examples of this included the Desert Park with its aims to integrate my aspects of reality into conservation, and the many examples of positive community participation, such as seen at the Campbell Town Golf Course with their threatened orchids. Yet I

(continued from page 7)

found nearly all the topics and presentations fascinating, some confirming or extending what I have already learnt at Uni. and others being totally new to me.

I found it very stimulating to be surrounded by so many like minded people, as botanists, not to mention botanical conservationists, are somewhat less common in society than many other professions. And this being a small course, it allowed for a lot of personal interaction. The cups of tea outside the schedule were equally as inspiring and informative as the programmed information. There was a great range of people and expertise around and consequently many of these people I will be able to keep in contact with, such that my network starts here.

Not only was the information strongly based in reality (unlike so much you learn at Uni.), but so were we with the field trips. This gave the course a strong regional feel, and lots of specific information and examples. These trips also provided the opportunity for a bit of extra mingling and fun.

So as a recent ex-student, I think the course was invaluable. It was very informative, inspiring, enjoyable and did wonders for introducing me to applied plant conservation and conservationists largely in Tasmania — just what I wanted!

## ANZECC Working Group on Nature Conservation on Private Land

Roberta Thorburn, Secretary, ANZECC Working Group on Nature Conservation on Private Land

he Australian and New Zealand ■ Environment and Conservation Council (ANZECC) is a non-statutory Commonwealth, State, Territory and New Zealand Ministerial Council. ANZECC provides a forum for information exchange and policy development on national and international environment and conservation issues. In late 1994, the ANZECC Standing Committee on Conservation (SCC) established the Working Group on Nature Conservation on Private Land. The Working Group was set up to consider issues that relate to off-reserve conservation. It comprises a representative from the environment department (or nature equivalent) of each Commonwealth, State and Territory government, and meets approximately twice per year.

SCC Working Groups, Taskforces and Networks

The Working Group is one of three principal working groups that report to SCC on a broad range of conservation issues. The other two working groups are the Working Group on National Parks and Protected Area Management, and the Working Group on Wildlife Conservation and Utilisation.

In addition, there are a number of SCC taskforces and networks. The taskforces are established, generally for a relatively short term, to examine a particular issue. Examples include the Use of Economic Instruments in Environmental Management Taskforce and the Bitou Bush/Boneseed Taskforce. The networks are a forum for discussion and information-sharing on broader topics. These include the Endangered Flora Network and the Weeds of Conservation Concern Network.

#### Role of the Working Group on Nature Conservation on Private Land

The Working Group has a role in ensuring that the approaches of the Commonwealth, States and Territories' governments to nature conservation on private land are integrated and coordinated. This forum provides an ideal opportunity for information-sharing across state/territory boundaries, and assists in the identification of best practice off-reserve conservation measures.

The Working Group keeps up to date with current government programs that are directed at off-reserve conservation, and examines their effectiveness. Similarly, it monitors the effectiveness of legislation in conserving nature on private land. The Working Group also recommends to the SCC mechanisms which can provide support to private landowners for nature conservation on their land. This support may take the form of financial assistance, management advice or raising community awareness.

Areas of specific focus include:

#### Land for Wildlife

Land for Wildlife type schemes have been established recently in some states (the term 'wildlife' includes both flora and fauna) based on nationally agreed standards developed by the Working Group. Victoria's non-binding Land for Wildlife scheme aims to encourage and assist landholders to conserve biodiversity, including wildlife habitat, on private land (Smith 1998).

(continued from page 8)

The Working Group on Nature Conservation on Private Land is currently supporting the establishment of schemes in other jurisdictions so that Land for Wildlife can be adopted nationally. The coordinated national scheme will provide support for an Australia-wide landholder network, which will encourage and assist the exchange of ideas and implementation of improved biodiversity management, signified by the uniform symbol of Land for Wildlife.

A recent survey by Pinzone (1998) of 32 private Land for Wildlife properties on the urban-rural fringe of north-east Melbourne located 385 species of flora. Of these, 30 indigenous species (nearly 13%) are not recorded as occurring in the region's public reserves (Pinzone 1998). Half of these are orchid species. As it is not financially or politically viable to purchase the land required to ensure conservation of all species, the survival of many species will rely on sympathetic management of private land (Platt and Ahern 1995). This demonstrates the important role that voluntary nature conservation schemes such as Land for Wildlife have to play in the conservation of Australia's native flora (Pinzone 1998) and fauna.

#### **Property Management Planning**

A second area that the group is focussing on is the inclusion of nature conservation in Property Management Planning (PMP). PMP aims to integrate all the aspects of property management, including the economic and social context of farming as well as the physical attributes of a particular property. There are a number of PMP programs operating in each of the States and Territories, called Property Management Planning in the ACT, Northern Territory and South Australia, Better Business PMP in Western Australia, Farming for the Future in New South Wales, FarmWi\$e in Tasmania, Futureprofit in Queensland and Farm\$mart in Victoria.

The recent trend in nature conservation in all Australian States and Territories has been towards an increasing focus on off-reserve conservation. Accordingly, there has been an increase in the commitment of resources towards conservation outside of the reserve network. This trend is expected to continue and the Working Group on Nature Conservation on Private Land will have an important role in ensuring that current and future programs adopt best practice measures and are effective in conserving nature on private land.

#### References and publications

ANZECC Working Group on Nature Conservation on Private Land. 1996. Nature Conservation on Private Land: Commonwealth, State and Territory Legislation and Programs: A report of the Working Group on Nature Conservation on Private Land prepared for the Australian and New Zealand Environment and Conservation Council, Standing Committee on Conservation. Australian Nature Conservation Agency, Canberra.

ANZECC Working Group on Nature Conservation on Private Land. 1997. Best Practice Initiatives for Nature Conservation on Private Land: A report prepared for the Australian and New Zealand Environment and Conservation Council — Standing Committee on Conservation. Unpublished report. Environment Australia, Canberra.

ANZECC Working Group on Nature Conservation on Private Land. 1997. Land for Wildlife: a national template: prepared for Environment Australia by the ANZECC Working Group on Nature Conservation on Private Land. Parks and Wildlife Service, Department of Environment and Land Management, Tasmania.

Parks and Wildlife Service. 1998. Land for Wildlife (Tasmania) — Implementation Plan. 1998. Parks and Wildlife Service. Department of Environment and Land Management, Tasmania.

Pinzone, G. 1998. *The contribution of private land towards regional flora conservation in Victoria*. Honours Thesis. Deakin University, Rusden.

Platt, S.J. and Ahern, L.D. 1995. Nature conservation on private land in Victoria, Australia — the Role of Land for Wildlife. pp 300–311. In: D.A. Saunders, J.L. Craig and E.M. Mattiske (Eds). *Nature Conservation 4: The Role of Networks*, Surrey Beatty & Sons.

Smith, S.J., 1998. *Review of Land for Wildlife* (*Victoria*). Parks and Wildlife Service, Department of Environment and Land Management, Tasmania.

#### For more information, contact:

Roberta Thorburn, Environment Australia, GPO Box 636, Canberra ACT 2601.

Phone: 02 6250 0335; Fax: 02 6250 7505;

email: roberta.thorburn@ea.gov.au.

#### Fourth Australian Network for Plant Conservation National Conference



#### Dates

25-29 November 1999.

#### Location

Lake Hume Resort, Albury/Wodonga, on the border of Victoria and NSW.

#### Themes

- Conservation of ecological communities
- Regional conservation an ANPC regional plant conservation strategy?
- In situ conservation
- Education does ANPC need an education strategy?
- Integration of plant and animal conservation
- · Conservation of non-vascular plants
- Restoration

#### Supported by

- ANPC NSW South West Slopes Regional Group
- Friends of the Albury Botanic Gardens
- Nature Conservation Working Group of the Murray Catchment Management Committee
- Environment Australia

#### Expressions of Interest

If you are interested in presenting a paper or poster, convening a workshop, joining the local organising or program committee, providing sponsorship, assisting with publicity, or suggesting a theme, please contact the ANPC National Office:

Phone: 02 6250 9509;

Email: anpc@anbg.gov.au.

For more information, check the ANPC

website at:

http://www.anbg.gov.au/anpc/4thconf.html

#### **Books for Sale**

#### ANPC Guidelines Now Reprinted

The two sets of ANPC Guidelines have now been reprinted. These are the *Guidelines for the Translocation of Threatened Plants in Australia* and *Germplasm Conservation Guidelines for Australia*. They are available from the National Office for \$10.00 each. To obtain copies, please send your contact details, and which titles you want to purchase, or contact the ANPC for an order form.

Note that there is a Web address for the Guidelines at:

http://www.anbg.gov.au/anpc/guides.html

#### Conference Proceedings Available

Integrated Plant Conservation in Australia.
Proceedings of the Conference 'Cultivating
Conservation: Integrated Plant Conservation for
Australia' Hobart December 1993.

Ed. Meredith, L. D. 1995. Australian Network for Plant Conservation, Canberra. These have been reduced from \$25.00 to \$10.00.

For any of the above publications, please send cheques made out to the ANPC to:

ANPC GPO Box 1777 Canberra ACT 2601.

## NOTE: ANPC Membership fees for 1999 now due

#### Membership Fee Structure

Federal, State or Local Government \$250 pa Agencies, Corporations and Industry Associations

Other (non-profit) Organisations \$60 pa (includes multiple copies of newsletter)

Interested Individuals \$35 pa

Check the back pages of *Danthonia* to see if your membership is up to date. Your continued support is appreciated.

## The ANPC Internet Directory of Plant Conservation Resources

Jean-Marc Porigneaux, ANPC volunteer

The ANPC's *Internet Directory of Plant* L Conservation Resources was initially established in July 1998. Since then it has been updated as new websites appear and others become obsolete. Its development was part of an overall strategy by the ANPC to facilitate easier access to information for people with access to computers and who are interested in plant conservation and environmental issues in general. A directory enables people to find information much more quickly than if they had to search for it themselves, so an Internet directory was seen to be a very useful way to efficiently access information on plant conservation. The Directory contains over 70 Web sites related to threatened plant species or other topics associated with plant conservation.

#### Access

To reach the Directory, go to the ANPC website at: http://www.anbg.gov.au/anpc

The Directory is then reached via the link "ANPC Internet Directory of Plant Conservation Resources". Subheadings divide the various Web site links into areas of similar interest. For example, the Botanic Gardens and Herbaria subheading contains a number of Australian and international sites. There are also subheadings for Courses, Conferences, Legislation and Organisations dealing with plant conservation.

#### Available as Hard Copy

The directory is available not only as an updated version on the ANPC Web site as listed above, but also as a hard copy version in its original format as at July 1998. The hard copy is most useful to those people without access to the Internet as it contains a brief summary of relevant information for each Web site as well as contact addresses on where to obtain further information.

This is by no means a complete list, but is aimed at providing users with a source address from which further internet exploration can take place. Those Internet sites that are listed are those that have been found to contain the most relevant information in regard to threatened plants. To obtain a copy, contact the ANPC National Office at the address given for publications.

#### Additional Sites

New home pages are appearing everyday and it is envisaged that any relevant additional sites will be added to the directory. If you know of any additional Web sites related to plant conservation that are not already listed, then please contact Jeanette Mill at the ANPC National Office. It is hoped that the ANPC Internet Directory will be beneficial to its members and other interested parties in the community in helping to share information on plant conservation. Please take the time to visit the ANPC Web site and discover its Directory of plant conservation links.

[Ed. The Directory was compiled by Jean-Marc while he worked as a volunteer in the ANPC National Office in July 1998].

#### **ANPC Publications available**

Integrated Plant Conservation in Australia.
Proceedings of the Conference 'Cultivating
Conservation: Integrated Plant Conservation for
Australia' Hobart December 1993. Ed. Meredith,
L. D. 1995. Australian Network for Plant
Conservation, Canberra.

The National Endangered Flora Collection: A Conservation Resource. 1993. National Office, Australian Network for Plant Conservation, Canberra.

Germplasm Conservation Guidelines for Australia. Produced by the Australian Network for Plant Conservation Germplasm Working Group. 1997. Australian Network for Plant Conservation, Canberra.

Guidelines for the Translocation of Threatened Plants in Australia. Produced by the Australian Network for Plant Conservation Translocation Working Group. 1997. Australian Network for Plant Conservation, Canberra.

Australian Network for Plant Conservation Internet Directory: a Guide for Web Sites on Threatened Plant Species. Compiled by Jean-Marc Porigneaux. 1998. Australian Network for Plant Conservation, Canberra.

Danthonia: Newsletter of the Australian Network for Plant Conservation. Published quarterly. To obtain: contact the ANPC National Office, GPO Box 1777, Canberra ACT 2601.

#### Recent Listing of a "New" Endangered Species of Eucalypt in Sydney

Steve Douglas, E.S.P. Ecological Surveys & Planning P/L, Sydney

In late 1998, the NSW Scientific Committee added an obscure small tree now known as *Eucalyptus* sp. Cattai (NSW 318983) to Schedule 1, Part 1 of the NSW Threatened Species Conservation (TSC) Act 1995, in recognition of its endangered status.

This species used to be considered a "ghost hybrid" between *Eucalyptus resinifera* (red mahogany) and *E. notabilis* (Blue Mountains mahogany). "Ghost hybrids" occur where one or even both of the hybrid "parents" no longer occur in the area where the hybrid occurs. In

this instance. E. notabilis is absent from the range of E. sp. Cattai. Its nomination for listing under the TSC Act in 1997 forced a rethink of its taxonomy and because there was no evidence that it was a hybrid, it was finally recognised as a species in its own right. The fact that it could be

grown from seed to reproduce true to type seriously undermined the earlier hybrid theory.

The result is that Sydney now has a "new" species of Eucalyptus, a fairly amazing situation after more than 200 years of botanising in the area. The question is whether Eucalyptus sp. Cattai will survive. The largest and one of the longest-known populations was recently bulldozed for a housing estate in the notorious North-West Sector development at Kellyville. Very few other populations are known and almost all of these occur on private land associated with rural-residential activities. Wild populations used to occur near Government House in the area now occupied by the Royal Botanic Gardens in Sydney. Another record comes from a now urbanised area at Mount Colah, north of Hornsby. Whilst some specimens may occur in the far south-east of Wollemi National Park, this has yet to be confirmed. No reserved populations are known.

As a small, often mallee-form tree, *E*. sp. Cattai is not exactly the type of tree that is likely to survive land clearing for housing and rural-residential activities. In fact, most councils wouldn't even consider it a 'tree' for the purposes of their Tree Preservation Orders, simply because it isn't tall enough or broad enough in the trunk to be recognised as such.

It occurs mainly as very small and isolated populations in scrub and scrubby low woodland

on ridgetops with residual, often laterised clays overlying sandstone. These areas tend to be preferentially cleared because they are viewed as a fire hazard and aren't generally seen as nice' bushland. They tend to suffer from 'tidying-up', which generally removes all but a few of the more



Sydney's new tree, Eucalyptus sp. Cattai. Photograph by Steve Douglas, ESP.

attractive specimen trees such as large scribbly gums. They also suffer at the hands of bushrock thieves who use these more accessible ridgetops to build access roads. Once the rock has been removed, these trails become a focus for illegal activities such as rubbish dumping, car burning, and inappropriate recreation.

E. sp. Cattai is not the only threatened species to suffer from these processes. Several other threatened plants such as *Persoonia hirsuta*, *Pimelea curviflora* var. *curviflora*, *Acacia bynoeana* and *Kunzea rupestris* are similarly threatened.

You can obtain the description of *E.* sp Cattai in the Final Determination of the NSW Scientific Committee from the Committee's office at National Parks and Wildlife Service, PO Box 1967, Hurstville NSW 2220, or access it on the web at:

http://www.npws.nsw.gov.au/news/tscdets/index.html

(continued from page 5)

NPWS offices in northwestern Sydney may have copies available. It is also described in *Flora of New South Wales* Volume 2 page 93 (as *E. notabilis* x *resinifera*).

If you find potential specimens of this species, take photos, note your location and send the information to the Royal Botanic Gardens. Don't collect specimen material unless you have a license to do this from the NPWS or the Botanic

Gardens. The main places to look are Baulkham Hills Shire north of Castle Hill, particularly northern Kellyville plus Annangrove and Kenthurst, south-eastern Wollemi NP and western Hornsby Shire including Marramarra NP.

#### Reference:

Flora of New South Wales. 1990. Ed. G. J. Harden. New South Wales Uni. Press.

## First Ecological Community Listed as Endangeroll

Cumberland Plain Woodlands — the first ecological community to be listed as endangered on Schedule 2 ('Ecological Communities that are Endangered') of the Endangered Species Protection Act 1992. The Minister for the Environment, Senator Robert Hill, accepted the advice of the Endangered Species Scientific Sub-committee (ESSS) to list the Cumberland Plain Woodlands on 26 August 1998. This declaration was gazetted on 23 September 1998.

Cumberland Plain Woodlands are found only on the Cumberland Plain, west of Sydney, NSW. They occur on soils derived from shale and represent those distinct groupings of woodlands comprising trees of Eucalyptus moluccana (Grey Box), E. tereticornis (Forest Red Gum) and in some areas E. crebra (Narrow-leaved Ironbark). It is the dominance of the two main species, E. moluccana and E. tereticornis, that makes the community distinctive. A variety of other trees (such as Melaleuca decora, Acacia decurrens and Angophora subvelutina), shrubs, grasses and herbs are associated with them.

The main shrub species is Bursaria spinosa with other including Dillwynia juniperina, Daviesia ulicifolia and Indigofera australis. Perennial grass species include Aristida vagans, Themeda australis and Eragrostis leptostachya. Small herbs include Brunoniella australis, Cheilanthes sieberi and Dianella laevis.

Only 6% (6,420 hectares) of the original community remained in 1998 in the form of small fragmented stands. Some areas occur

within conservation reserves, but this is not sufficient to ensure the long-term survival of the community unless the factors threatening the integrity and survival of the community are ameliorated.

Threats include clearing for agriculture, grazing, farming, housing, invasion by exotic plants and increased nutrient loads due to fertiliser run-off from gardens or farmland, dumped refuse or sewer discharge.

It is the view of ESSS that the ecological community known as 'Cumberland Plain Woodlands' meets the criteria for Endangered under s6.(3), as it is subject to current and continuing threats likely to lead to extinction. This is demonstrated by the following two of the four criteria for an ecological community provided in the document Listing Endangered Ecological Communities under the Endangered Species Protection Act 1992: Guidelines for Nomination and Assessment of Proposals:

- (a) marked decrease in geographic distribution (to 6% of the original community), and
- (b) restricted geographic distribution such that the community could be lost rapidly by the action of a threatening process (such as clearance for farming, industry and housing).

A detailed description of the ecological community is provided in Benson D. (1992) **The natural vegetation of Penrith**. *Cunninghamia* 2(4): 541–596.

#### Content oes

Getting the Message Across: Communication for Conservation

March 21–26 1999: Alice Springs Desert Park, Northern Territory. ARAZPA/ASZK 1999 Conference.

This will be presented by the Australasian Regional Association of Zoological Parks and Aquaria (ARAZPA) and the Australasian Society of Zookeeping (AZK). The conference is an opportunity for zoo industry professionals to get their message over to both colleagues and a wider audience.

One major aim is to highlight the importance of plants in zoos, and also to provide more opportunity to explore possible links between zoos and botanic gardens.

There will be local and other speakers, a mixture of papers, technical presentations, workshops, poster sessions and meetings of Taxon Advisory Groups. There will also be visits to interesting desert landscapes both within and outside of the new Desert Park including a tour of the MacDonnell Ranges.

For more information, contact Andrew Mann, Conference Coordinator, Alice Springs Desert Park, PO Box 1046, Alice Springs Northern Territory 0871.

**Phone:** +61 8 8951 8764; **Fax:** +61 8 8951 8777.

Grounding the Paradigm (ecological economics)

**5–7 July 1999:** Griffith University, Brisbane, Qld. ANZES National Conference.

For information, please contact Dr John Tisdell, Australian and New Zealand Ecological Society, Australian School of Environmental Sciences, Griffith University, Brisbane Qld 4111. Email: j.tisdell@ens.gu.edu.au.

People and Rangelands — Building the Future

19–23 July 1999: Townsville, Queensland. Sixth International Rangeland Conference.

Contact: Business Manager, VI IRC, PO Box 764, Aitkenvale, Townsville Qld 4814.

Phone: Gordon King 02 9385 4232;

Fax: Business Manager, VI IRC 02 9449 3670;

Email: secretariat-irc@unsw.edu.au; Internet: http://irc.web.unsw.edu.au.

> Reweaving the World — Restoration, Community, Culture

**September 23–25, 1999:** San Francisco, California, USA. International Conference of the Society for Ecological Restoration.

Talk or poster submissions are due no later than March 15 1999. Please send to the SER99 web page:

www.sercal.org/ser99.htm

If this is not possible please mail a clean hard copy and an IBM disk in MS Word format to Deborah Amshoff — Program Chair, 2489 Whitney Dr. #1, Mountain View, CA 64043 Phone: (805) 634 9228.

If neither of the above formats are feasible, please contact Ms. Amshoff at: amshoff@earthlink.net

Guidance on preparing conference submissions, and conference information are available at the above web address:

For a copy of the registration brochure, please send your name, address, daytime phone and email to the Society for Ecological Restoration, 1207 Seminole Highway, Suite B, Madison, WI 53711 USA.

Phone: 608-262-9547; Fax: 608-265-8557;

Email: ser@vms2.macc.wisc.edu.

#### Samboar

Encouraging Wildlife in City and Country Gardens

**26–28 February 1999:** Karwarra Australian Plant Garden's Fourth Biennial Seminar.

Participants will include state government, local councils, gardeners of large and small facilities, landscape architects, designers and contractors, members of educational institutions, members of Friends groups, and Australian plant enthusiasts.

Contact: Marilyn Gray, Manager Karwarra Australian Plant Garden, Mt Dandenong Tourist Rd, Kalorama Victoria 3766.

Phone: 03 9728 4256 or 03 9735 8333.

#### Course

Coastal Management Course By Correspondence

Deakin University is now offering all units of its Graduate Certificate in Coastal Zone Management by correspondence. This is a fee paying course composed of four subjects. Special entry provisions allow a person with considerable experience in natural resources management (and no degree) to enter the course.

Prospective students can construct their studies around their current interests and/or jobs or assemble a group of subjects which will open up new opportunities.

If you are interested you can obtain further information from either Tina Conde (Administrative Officer) or Assoc. Professor Geoff Wescott, the Course Coordinator. **Phone:** 03 9244 7218:

Email: tinaa@deakin.edu.au.

#### Electronic Addresses

Cooperative Research Centre for Tropical Rainforest Ecology and Management http://www.cimm.jcu.edu.au/rainforestCRC/

The Convention on Biological Diversity Clearing-House Mechanism

html://www.biodiv.org/chm.htm

Biodiversity Conservation Information System

html://www.biodiversity.org/

Community Biodiversity Network's Biodiv-Talk and Biodiv-Ed

Peed to keep in touch with new biodiversity policy law issues and biodiversity education initiatives?

Join CBN's new electronic discussion groups and mailing lists called Biodiv-Talk and Biodiv-Ed. To join either of these Discussion Groups/List-Servers, go to the What's New section on the CBN home page at: http://www.cbn.org.au

New On-line Information Clearing House

The CBN web site above now includes an information clearinghouse that includes up to date information on policy and law, recent releases, consultation round-up, on-line bibliographies, BIONET: directory of Australian web sites and links to CBN discussion groups.

Australian National Botanic Gardens preliminary 'Environmental Weeds' page

http://www.anbg.gov.au/weeds/weeds.html

World Species List

http://www.envirolink.org/species/

FloraBank

http://www.florabank.org.au

#### Plant Cuttings

The Botany Department of the Natural History Museum, London has a new online newsletter. *Plant Cuttings* includes highlights of current botanical research at the Museum, recent events and news of botanists working behind the scenes. Issue 1 of *Plant Cuttings* can be viewed at:

http://www.nhm.ac.uk/botany/cuttings/issue1/index.html

#### Exhibition

Biodiversity: Life Supporting Life

The Australian Museum launched its new semi-permanent exhibition on 19 September 1998. Biodiversity: Life Supporting Life has been carefully designed to appeal to all ages from three years upwards. The exhibition is divided into a number of key areas including ecosystem conservation, loss of biodiversity, extinction, the importance of biodiversity, understanding and conserving biodiversity, and a section focussing on what each person can do.

For more information, contact: Miranda Wills, Manager — Biodiversity Gallery, Australian Museum, Sydney.

Phone: 02 9320 6165.

#### Report on the Course 'Establishing a Seed-based Genebank for Conservation'

Peter Horsfall, Nursery, Alice Springs Desert Park

In July 1998 Anne Cochrane of the Department of Conservation and Land Management (CALM) in WA ran an interesting course on establishing a seed-based genebank. Anne is a research scientist managing the Threatened Flora Seed Centre based at CALM's WA Herbarium.

The course took place at CALM's beehive building to the south of Perth and had a good representation from interstate, with a balance of personnel from Botanic Gardens and Greening Australia. It is, I think, the first of its type that has been run at a national level and hopefully not the last.

Over seven days Anne put together a well-balanced program covering laboratory seed strategy ideals and practices. For the first four days everyone went through the guidelines for germplasm conservation that have been set out by and are available from the Australian Network for Plant Conservation. We visited CALM and heard talks from botanist Sue Patrick, Herbarium Manager Neville Marchant and plant geneticist David Coates (wish we had one of those).

There were regular visits to the canteen through the rain (a rare treat — water coming out of the sky!), a visit to Kings Park and Botanic Gardens where Kingsley Dixon (Assistant Director, Science), Luke Sweedman (seed collector) and Patrick Courtney (Nursery Manager) gave talks and tours. Anne then took us out into the field to show the outcome of some of the work that is being carried out by her unit, which is the reintroduction of threatened species back into habitat situations, followed by monitoring and assessment.

Anne raised and discussed the issues along the way and there was very good interaction from everyone concerned. I must say that Anne was a most gracious host. Everybody was supplied with a box full of references covering all facets of seed conservation which nearly created excess baggage for the trip home.

On day one, orthodox, intermediate and recalcitrant seed types were discussed and I noticed that everybody still throws their hands up in the air in bewilderment about recalcitrant seed storage — these seed types have long been a storage problem.

Discussion over the week then moved onto issues of seed predation, the necessity of quick seed processing, the importance of clean seed, seed moisture content, packaging and storage decisions. Seed moisture content and storage temperature procedures are well established and guidelines have been clearly set out for international standards. Storage was discussed at some length as each participant found that the needs of their organisation differed, as do the facilities available, but in essence short term storage is considered to be less than 5 years, medium 5–25 years and long term greater than 25 years.

Other important aspects discussed were seed collecting protocols in the field and seed quantity collected, not only from the field but also for storage. Collecting protocols are, it would seem, relatively well set out and understood (certainly by the people present) but seed quantities collected leave a number of ethical queries still not fully agreed upon across the board. Farming of seed to relieve wild population pressure seems to be the way to go.

Anne carries out viability testing for all the Rare & Threatened species along the way at set intervals, and it is this aspect of her unit's work that would probably constitute the majority of the workplace time.

The success and importance of the work carried out by Anne and her team show very clearly the need to do the work, because as in most cases of human intervention into habitats eg. agriculture, the introduction of weeds and the introduction and spread of disease (very clearly illustrated in WA), if nobody is working in these areas to try to conserve diversity, then it will be lost. One pressure with the Rare and Threatened's is that they are being continuously added to, and as it is the old case of not enough resources to do the job, catching up never seems to happen.

Other work of Anne's is also very interesting. These offshoots to the mainstream of her programs include the growing of difficult plants and of seed not previously germinated.

One of the most interesting aspects of the course was the fact that everybody had the same difficulties with either the same taxa or genera and this brought home the necessity to try to collaborate at a national level, to put together ideas based on people's actual experiences and successes rather than stories.

My thanks to Anne for a well researched, beneficial and captivating time.

#### **Funding**

New Natural Heritage Trust Applications 1999–2000

The closing date for applications for projects starting in the 1999–2000 financial year is 26 February 1999.

A guide, entitled *Natural Heritage Trust* — *Helping Communities, Helping Australia: Guide to New Applications 1999–2000*, is available from the Community Information Unit, Environment Australia at:

Freecall: 1800 803 772;

and from Countrylink, Department of Primary Industries and Energy at: Freecall: 1800 026 222.

There is also a NHT Web site at: http://www.nht.gov.au

The Trust encourages applications from government and community organisations, either urban or rural, which meets the requirements outlined in the Guide. Eligible types of organisations include local government bodies, indigenous communities or organisations, and incorporated non-government organisations.

The Guide takes applicants through the steps involved in applying for the grants, with instructions matching the application form, and a flow chart. There are funds for small projects (less than \$20,000 per year), and large projects (over \$20,000 per year). Applicants wanting help can contact relevant Trust contact people in their state or territory. These are listed in Appendix 2 of the Guide.

Native Vegetation Incentive Funding Opportunities Available Now in NSW

The NSW Department of Land & Water Conservation is offering financial and technical assistance for landholders to conserve native vegetation. Activities covered include fencing, site preparation, feral animal control, weed control and tree and shrub planting

To access this assistance landholders need to enter management contracts or property agreements with the Department. These are voluntary agreements which outline how native vegetation will be managed on a property.

Management Contracts can be negotiated for amounts up to \$10,000. Property Agreements can be negotiated for amounts over \$10,000.

To obtain the free Landholders Information Package, contact:

Toll free number: 1800 353 104.

The Australian Flora Foundation Research Grants

The Australian Flora Foundation offers grants to a maximum size of \$12,000 with the possibility of similar funding for a second year. Two research areas are of special interest to conservationists, ie. conservation of Australian plant diversity and rare and endangered plants

There is no form for applications. One copy, limited to two A4 pages, should reach the Honorary Secretary, Australian Flora Foundation, GPO Box 205, Sydney NSW 2001 by March 16 1999. A short list of applicants will be asked to present detailed proposals. Further information can be obtained from:

Dr Candy Briggs.
Phone: 0419 295 144.

Earthwatch Support for Field Research

Earthwatch supports field research projects of the highest quality in conservation biology, among other disciplines. It supports independent field research that provides objective data contributing to a better understanding of the world's physical, natural and cultural resources.

Proposals are accepted from experienced researchers, and projects are required to include volunteer field assistants. The funds paid by these volunteers help Earthwatch provide its field grants. Grant applications take the form of a preliminary proposal, after which a full proposal may be invited. All are sent out for peer-review.

Successful proposals are awarded field grants on a per capita basis according to the number of volunteers deployed. In certain instances, Earthwatch may be able to provide additional support.

For further information or to request a preliminary proposal form, please contact Dr Jane Gilmour, Director, at Earthwatch Australia, 126 Bank Street, South Melbourne VIC 3205.

Phone: 03 9682 6828; Fax: 03 9686 3652;

Email: jgilmour@earthwatch.org.

## Surviving in the Cemeteries — A New Era in Conservation

Mark Williams, Australian Network for Plant Conservation — Sydney Region Group

On Saturday 7 November 1998, I was fortunate to attend at Monteagle, near Young, the inaugural meeting of the Grassy White Box Woodland Protected Area Network.

Grassy White Box Woodland once covered around 5 million hectares along the Western Slopes of New South Wales. Today, a few old cemeteries and narrow travelling stock routes make up the 75 hectares of high quality remnants left. The rest has been lost to cropping or greatly modified by livestock grazing.

These tiny remnants contain important stores of plant species and genetic diversity. It is considered the most poorly conserved ecosystem in Australia. Beneath scattered trees

of White Box (Eucalyptus albens) is a profusion of grasses and wildflowers — Kangaroo Grass, Poa tussock, buttercups, Donkey Orchids, Yam Daisies, Chocolate and Fringed Lilies.

Drs Kevin Thiele and Suzanne Prober, formerly from

CSIRO, have been surveying and researching these tiny remnants for eight years. Dr Thiele stated that when Thomas Mitchell first discovered this woodland in the 1820s, he described it as a "park-like" woodland. Mitchell stated "the fields were gay with wildflowers" and called these woodlands "Australia's fields". Most were taken up in the first ten years because of their appeal as "instant farms". Dr Thiele said, "The soft, good basalt soils became known by the graziers as the 'fat grounds'".

These woodlands also contained the significant staple, the Yam Daisy (*Microseris lanceolata*). Accounts by Mitchell and Cunningham in the 1800s recount that Yam Daisies were in such profusion that the local

aboriginal women were seen harvesting as much as 100 wt (50kg) of tubers in just two hours. These daisies were very sensitive to grazing and now are quite rare.

Dr Thiele stated "the day represents the culmination of eight years of intensive survey and research. The formation of the protected area network plus the appointment by the New South Wales National Parks and Wildlife Service (NPWS) of a state-wide Coordinator, Ms Erica Higginson, is the beginning of a new era in conservation".

The old philosophy has been dominated by the idea of "big National Park management" involving very large acquisitions. The NPWS have historically seen the management of small areas as a problem.

The establishment of a network for Grassy White Box Woodland is a new approach. It is community-based and cooperative. It involves the upgrading of Local Environment Plans and

Voluntary
Conservation
Agreements
(VCAs).
Other
initiatives
involve
Landcare
groups and
individual
landholder
goodwill.
Young

Shire Council have recently signed a

Voluntary Conservation Agreement with the NSW Minister for the Environment to manage the Monteagle Cemetery for conservation while still maintaining a working cemetery.

The best remnants are Woodstock Cemetery (5 ha) near Cowra and Monteagle Cemetery (4.5 ha) near Young. The best time to see them is from early October to see fields of Yam Daisies and then early November to smell the Swiss chocolate fragrance of the Chocolate Lilies (*Dichopogon fimbriatus*) and see Donkey Orchids (*Diuris* spp.) everywhere.

With the good winter rains, this is one of the best seasons for a long time. It's on my conservation calendar — see you there!



Dr Kevin Thiele pointing out different species at the Monteagle Cemetery Field Day. Photograph by Erica Higginson, NSW National Parks and Wildlife Service.

(continued from page 18)

For more information regarding the Grassy White Box Woodland Protected Area Network contact Erica Higginson, NSW National Parks and Wildlife Service, PO Box 1967, Hurstville NSW 2223.

Phone: 02 9585 6659;

Email: erica.higginson@nsw.npws.gov.au.

#### **Other News**

GreenWeb — a Regional Response to Biodiversity Conservation

The GreenWeb-Sydney Vegetation Management Plan was a project initiated by the Sydney Regional Organisations of Councils (ROCs). It received a \$50,000 grant from the old Australian Nature Conservation Agency under the Regional Environmental Employment Program. The Australian Local Government Association also assisted the successful application.

The Sydney ROCs contracted an environmental planner, Birgit Seidlich, to draw together and map existing information about the location of native vegetation and to identify and map opportunities for revegetation corridors to link native remnants.

The project has developed several vegetation management products that are available for purchase from the Sydney Regional Organisations of Councils. These are:

- An Action Plan for local government including recommendations for policy, planning and community education and participation programs to assist conservation and management of native vegetation;
- The GreenWeb consisting of 6 maps at 1:30 000 scale also available as a CD-ROM;
- Local government profile sheets available on disc providing specific information on local vegetation communities; and
- A summary of the native vegetation community types in Sydney.

For more information, contact: George Curtis, Environment Projects Officer, Western Sydney Regional Organisation of Councils (WSROC Ltd).

Phone: 02 9671 4333; Fax: 02 9621 7741;

Email: admin@wsroc.com.au.

#### Evaluation of US Translocation Projects

Diana Hickson, a botanist with the California Department of Fish and Game, is evaluating the success of translocation projects involving threatened plants in California. A Department-sponsored study in 1991 found a very low success rate for translocation that was performed for impact mitigation purposes, yet this practice is still accepted by the Department, which has regulatory authority under the California Endangered Species Act. Diana will examine alternatives to translocation as a conservation measure and prepare a draft policy for the Department. She would welcome your thoughts on the issue.

Diana also sent a copy of a similar report by a colleague. This is Mitigation-Related Transplantation, Relocation and Reintroduction Projects Involving Endangered and Threatened, and Rare Plant Species in California. 1991. Peggy L. Fiedler. The report was submitted to the Endangered Plant Program of the California Department of Fish and Game.

Contact: Diana Hickson, Associate Botanist, Habitat Conservation Planning Branch, Habitat Conservation Division, California Department of Fish and Game, 1416 Ninth St, Sacramento CA 95814.

Phone: (916) 327-5956; Fax: (916) 324-0475;

Email: dhickson@hq.dfg.ca.gov.

#### **Students for Conservation Projects**

Australian Trust for Conservation Volunteers (ACTV)

- Open to students from the age of 16.
- Five days during the school term break.
- Program costs \$50.
- Experienced staff to train students.
- A certificate of participation will be issued.

Places are limited so contact ATCV as soon as possible at PO Box 423, Ballarat Victoria 3350.

Freecall: 1800 032 501; E-mail: info@atcv.com.au.

chan: mowatev.com.au.

Check the ATCV website for additional

details at:

http://www.netconnect.com.au/atcv.

#### National Local Government Biodiversity Strategy

The National Assembly of Local Government unanimously adopted the National Local Government Biodiversity Strategy (NLGBS) on 11 November 1998. The Strategy sets out a national plan to enable biodiversity conservation to become a mainstream function of local government, which is generally responsible for planning and development control functions. It identifies the steps to be taken and the indicative costs.

The NLGBS was initiated by the Biological Diversity Advisory Council and the Australian Local Government Association (ALGA).

For further information, visit ALGA's website at: www.algo.com.au/ga98bp.pdf or contact:

Sam Bartlett, ALGA.

Phone: 02 62811211 (ext 35).

#### **Publications**

Native Seed in Australia: Summary Findings and Draft Recommendations. 1998. Warren Mortlock. Published by FloraBank with the assistance of Bushcare — a program of the Commonwealth Government's Natural Heritage Trust.

The FloraBank partners are Greening Australia, CSIRO Forestry and Forest Products through the Australian Tree Seed Centre, and the Australian National Botanic Gardens.

Draft Model Code of Practice for Community Seedbanks in Australia. 1998. Warren Mortlock.

Comment is invited on both the above publications by 29 January 1999 and should be forwarded to:

FloraBank Coordinator, PO Box 74 Yarralumla ACT 2600.

Phone: 02 6281 8585;

Email: greenaus@ozemail.com.au.

Copies of the draft Model Code of Practice may be obtained from the above address. Alternatively, the draft may be viewed or downloaded from the FloraBank website: http://www.florabank.org.au.

World Conservation Vol. 29 No. 2 April–June 1998. This edition of a publication from the Inter-national Union for Conservation of Nature and Natural Resources (IUCN) covers the issue of plant disappearances and the global threat to bio-diversity. Its contents include an article called **Discovering Bryophytes** by Dale Tonkinson and Perpetua Blanks, adapted from the article by the same authors in *Danthonia* Vol. 6 No.4 March 1998.

The annual subscription for *World Conservation* for non-members is US\$45 or equivalent in other convertible currencies. This includes airmail postage. Contact IUCN, Rue Mauverney 28, Gland Switzerland.

Phone: ++41 (22) 999 0001;

Fax: ++41 (22) 999 0002;

Email: mail@hq.iucn.org.

Environmental Indicators for National State of the Environment Reporting: Community and Local Uses. 1998. J. Alexandra, J. Higgins and T. White. Environment Australia, Canberra.

Landscape Planning for Biodiversity Conservation in Agricultural Regions. 1998 (in press).
R. Lambeck. Biodiversity Technical Series.
Biodiversity Group, Environment Australia,
Canberra. To obtain a copy, contact the
Environment Australia Community Information
Unit on:

Toll-free phone: 1800 803 772.

The Darwin Technical Manual for Botanic Gardens. 1998. Eds. Etelka Leadlay and Jane Greene. Botanic Gardens Conservation International (BGCI), London UK. This practical manual aims to increase the scientific, conservation and educational value of worldwide living plant collections, and covers issues such as collections, records, training (including mention of the ANPC's Plant Conservation Techniques Course) and education.

Copies are available to institutional members of BGCI and to botanic gardens in developing countries free on request. For others the charge is 10 pounds UK including post and packing. Cheques made out to Botanic Gardens Conservation International, or VISA/Mastercards are acceptable. Contact The Publications Department, BGCI, Descanso House, 199 Kew Rd, Richmond, Surrey TW9 3BW UK.

Auckland Threatened Plant Strategy. 1998. Rebecca Stanley. Auckland Conservancy. Department of Conservation/Te Papa Atawhai. The strategy describes approaches to management of threatened plants in the Auckland Conservancy as part of a wider aim of encouraging protection and recovery of New Zealand's biodiversity.

The contact person is Rebecca Stanley, Auckland Conservancy, Department of Conservation, Private Bag 68908, Newton, Auckland New Zealand.

Community Biodiversity Survey Manual. NSW National Parks Association (NPA) and NSW National Parks and Wildlife Service. This manual has been produced to assist community involvement in collection of data about their local flora and fauna. It has both a simple style of survey and a more detailed style for people with more experience.

For more information, contact Claire Carlton

at the NPA on:

Phone: 02 9233 4660; Fax: 02 9233 4880;

Email: npansw@bigpond.com.

Beyond Roads, Rates and Rubbish: Opportunities for Local Government to Conserve Native Vegetation. Binning, C., Young, M., and Cripps, E. 1998. Draft Final Report. CSIRO, Canberra.

Bio-what? Getting the Message to Primary Schools. The South Australian Urban Forest Biodiversity Program (UFBP) has developed a Starter Kit for Primary Schools — Bio-what? — to start a Biodiversity Action Program for schools and their local area. It is designed as a long term process, to be passed on from year to year in the school, and encourages networking between schools and community groups, both locally and globally. The kit consists of 8 Research Units and 4 Action Units, which are linked to the National Curriculum. Research Units cover key threats to biodiversity eg. land clearing and pollution.

*Biowhat?* is available for \$10 plus \$5 postage from: Urban Forest Biodiversity Program, State Tree Centre, Brookway Drive, Campbelltown SA 5074.

Phone: 08 8207 8767; Fax: 08 8207 8755;

Email: rossoke@adam.com.au.

#### **Change of Address**

The South Australian Conservation Biology Unit has recently relocated from the Black Hill Flora Centre to the State Herbarium of South Australia, and the new contact details are as follows:

Dr Manfred Jusaitis
Conservation Biology
State Herbarium of South Australia
North Terrace
Adelaide SA 5000.

Phone: 08 82282306; Fax: 08 82150078;

Email: mjusaitis@dehaa.sa.gov.au.

#### ANPC Member Calls for Ideas

Brian Quinn, an ANPC member from Victoria, recently sent an email to us asking for help. He is doing a Masters of Applied Science at Melbourne University in Geographic Information Systems. He writes:

"I would like to do a project where I help someone map endangered plants and site relevant data and perhaps later put in the genetic variations, and then do geostatistics on the data to find out whether certain clones prefer certain sites etc. I am also interested in producing 3d versions of the data so you could fly over the mountain say, and see where the plants are. Any ideas?"

If anyone can help, you can contact Brian on his email address: quinn@netcon.net.au

#### Regional Groups

NSW South West Slopes Region Paul Scannell, Albury Botanic Gardens

Threatened Species Recovery Plan: The Caladenia concolor (Crimson Spider Orchid) project has been approved for a Threatened Species Recovery Plan. The first meeting is planned for early 1999 and progress will be continually updated in Danthonia.

Three new orchid species have been located over the past year by our local orchid enthusiast, bringing our list to 40 species of native orchids verified in the Nail Can Hill Range.

Greening Australia Seedbank: Louise Bull has had many university students collecting seed of understorey species for the Greening Australia Albury seedbank. The seed is to be used for both direct seeding projects and nursery stock propagation for tubestock plantings. The seedbank is full of drying racks and Louise is busy matching collecting programs to upcoming projects.

Many of these projects have been due to successful NHT applications by members of the Nature Conservation Working Group of the Murray Catchment Management Committee.

Three projects will certainly show positive outcomes for conserving native remnant vegetation and creating linkages and corridors for wildlife habitat. These are Billabong Creek Renaissance, Rebirding the Holbrook Landscape to mitigate Dieback, and Managing Native Vegetation — "Learning from Farmers".

Regional Gardens Education Course:
Regional Botanic Gardens from Coffs Harbour to
Warrnambool have been successful in applying
for Council of Heads of Australian Botanic
Gardens Staff Development Grants. This will
enable one staff member from each of 15 regional
gardens to travel to Canberra for an intensive
5 day Education Training course at the Australian
National Botanic Gardens in April 1999.

This course is to enable the staff members to develop signage, tours and education programs to promote the conservation of biodiversity in their Gardens, with appropriate messages and the best outcomes for their local communities.

1999 ANPC Conference, Albury/Wodonga: The Lake Hume Resort has been selected as the venue for the 1999 ANPC Conference which is to be held in November. It offers a wide range of accommodation, from hostels to cabins and motel rooms. This will be a great chance for people from all areas of plant conservation to get

together and gain some real positives and make great contacts.

If you have any inquiries, please contact me at the Albury Botanic Gardens office.

Phone: 02 6023 8241; Fax: 02 6041 6527;

or with our huge leap into

Email: accgardn@albury.net.au.

#### SENSW/ACT Region

As yet this group has no Coordinator to replace John Wilkes and Ros Cornish. The ANPC National Office repeats the appeal for a member in this region to step forward to help.

Help ANPC Inc to continue its vital role in conserving plants and plant communities at a local level as well as nationally! The SENSW/ACT Region now needs a new Coordinator to keep the Group going, so if one of you, the members in this area, is willing to spend some time and energy in this position, please ring the National Office on: **Phone:** 02 6250 9509.

#### Tasmanian Region

In early December the Tasmanian Group hosted the Second ANPC Plant Conservation Techniques Course. For reports on the Course, see the National Coordinator's Report on page three of this issue, and the two reports from participants also in this issue.

For information about the group, please contact Andrew Smith, Coordinator, at Parks and Wildlife Service, Tasmania.

Phone: 03 6233 2185; Fax: 03 6233 8308.

#### Sydney Region

The Sydney Region Group last met on Saturday 26 September, when a group went to the Katandra Bushland Sanctuary at Ingleside. The report will now appear in the March 1999 issue of *Danthonia*.

Coordinator: Tracey Armstrong, Mt Annan Botanic Garden, Mt Annan Drive, Mt Annan NSW 2567.

Phone: 02 4648 2477; Fax: 02 4648 2465;

Email: tracey@rbgsyd.gov.au

#### NSW Western Slopes Region

For information about the group, please contact Coordinator Bob Waters, Burrendong Arboretum, Mumbil NSW 2820.

Phone/Fax: 02 6846 7454.

#### The Australian Network For Plant Conservation Inc. Membership List

The date in brackets indicates that the member has joined or renewed for that year. Addresses and names of contact persons are available from the National Office.

#### Corporate Members

ACT Parks & Cons. Service (1998)
Adelaide Botanic Gardens (1999)
Albury Botanic Gardens, NSW (1998)
Alcoa of Australia Ltd, WA (1999)
Australian National Botanic Gardens (1999)
Aust Tree Seed Centre, CSIRO (1998)
Barcaldine Shire Council, Qld (1997)
Biodiversity Group, Environment Australia (1999)

Brisbane Botanic Gardens, Old (1999) Caloundra City Council, Old (1998) Centre for Plant Biodiv. Rsch, ACT (1997) Centre for Plant Conservation Genetics, NSW (1999)

Coffs Harbour City Council, NSW (2000) Conservation & Land Management, WA (1998)

Council of the City of Orange, NSW (1998) CSIRO Publishing (1999)

Dept. of Defence, ACT (1998) Environment ACT (1997)

Eurobodalla Bot Garden, NSW (1997)

Flecker Botanic Gardens, Qld (1999) Forestry Tasmania (1997)

Gladstone Tondoon Botanic Garden, Qld

Kings Park and Botanic Gardens, WA (1997)

LWRRDC, ACT (1999)

Logan City Council Libraries, Old (1998) Maroochy Shire Council, Old (1998) Minerals Council of Aust, ACT (1997) Mt Tomah Botanic Garden, NSW (1998) Norfolk Island Botanic Garden (1999) North Forest Products, Tas (1998) NSW National Parks & Wildlife Service

Olympic Coord. Authority, NSW (1998) Pacific Power, NSW (1998)

Parks and Wildlife Commission, NT (1999) Parks Australia — North, Christmas Island (1999)

Old Dept. Environment Cent. Coast (1999) Queensland Herbarium (1998) Randwick City Council, NSW (1998) RGC Mineral Sands, WA (1998) Royal Botanic Gardens, Melbourne, Vic (1998)

Royal Botanic Gardens, Sydney, NSW (1999)

Royal Tasmanian Botanical Gardens (1999) Strathfield Municipal Council, NSW (1998) Tas. Dept. Primary Industries, Water & Environment (1999)

Townsville City Council, Qld (1998) Wollongong Botanic Gardens (1999) Zoological Parks Board of NSW (1998) Zoological Board of Victoria (1998)

#### International Associates

Auckland Plant Collections Network, NZ Botanic Gardens Conservation Intl, UK Botanical Research Institute of Texas David Brackett, SSC, IUCN Canadian Botanical Conservation Network Center for Plant Conservation, USA Columbus Zoo, Ohio, USA (1998) Darren Crayne, Florida, USA (1998) David Given, NZ Honiara Botanic Gardens, Solomon Islands Indian Society for Conservation Biology Indonesian Network for Plant Conservation Clive Jermy Kebun Raya Indonesia Noelline Kroon, South Africa (1998) Missouri Bot. Gardens Library (1996) Dr Neil Mitchell, NZ (1999) Suresh Narayana, India National Botanical Institute, South Africa PlantNet, UK Rare Plant Consortium, Canada Royal Botanic Gardens, Kew, UK (1999) SABONET, South Africa Alison Shapcott, Brunei (1998) Society for Ecological Restoration, USA, Dr I Wayan Sumantera, Indonesia Suva Botanical Gardens, Fiji Roy Taylor, USA (1999) Andrew Townsend, Dept. Cons., NZ

#### Other Organisations

ARAZPA (1999)

Arid Lands Environment Centre, NT (1998) Assn. of Soc. for Growing Aust Plants (1998)

Vailima Botanic Gardens, Western Samoa

Wellington Plant Conservation Network

Australian Arid Land Botanic Garden, SA (1999)

Aust Assn. of Bush Regenerators (1998) Aust. Inland Botanic Gardens, Vic (1997) Aust. Plants Society Maroondah, Vic (1999)

Aust. Plants Society, NSW (1999) Aust. Trust for Conservation Volunteers (1997)

Brunswick Valley Heritage Park, NSW (1998)

Burnley College, Vic (1998)
Burrendong Arboretum Trust, NSW (1997)
Community Biodiversity Network (1999)
Friends of ANBG, ACT (1999)
Friends of Eurobodalla BG, NSW (1999)
Friends of Grasslands, ACT (1999)
Friends of North Coast Regional BG, NSW (1998)

Friends of Warrandyte State Park, Vic (1998)

Greening Australia (ACT/SENSW) (1999) Greening Australia Ltd (1998) Greening Australia (NSW) (1999) Greening Aust Sth West Plains, NSW

Greening Aust Sth West Slopes, NSW (1998)

Greening Australia (Vic) (1997) Hunter Region Botanic Gardens, NSW (1998)

Illawarra Zoological Society, NSW (1997) Indigenous Flora & Fauna Assn (1999) Lismore Rainforest Bot. Garden (1998) Merri Creek Management C'ttee, Vic (1998)

Monarto Zool. Park, SA (1998) Myall Park Botanic Garden, Qld (1998) National Threatened Species Network (1999)

Native Seedbank for Central Qld (1998) NSW Roadside Env't. C'ttee (1998) Olive Pink Botanic Garden, NT (1998) Pangarinda Arboretum, SA (1999) Qld Biodiversity Network, Qld (1998) Royal Aust Institute of Parks & Recreation (1998)

Royal Geographical Society of Old (1999) Royal Zoological Society of SA (1999)

SGAP Blue Mtns Group, NSW (1999) SGAP — Canberra Region Inc (1999)

SGAP — Dryandra Study Group (1998) SGAP — Far Nth Coast Gp, NSW (1998)

SGAP — Far Nth Coast Gp, NSW (1998) SGAP — Ipswich Branch, Qld (1998)

SGAP — Newcastle, NSW (2000)

SGAP — North Shore, NSW (1998) SGAP — Northern Group, Tas (1999)

SGAP — North West, Tas (1998) SGAP — Queensland Region (1999)

SGAP — South West Slopes, NSW (1998)

Stony Range Flora Reserve, NSW (1998)
Tasmanian Arboretum Inc (1999)
Trust for Nature (Victoria) (1998)
Understorey Network, Tasmania (1997)
Wallum Action Group, Qld (1997)
Wildflower Society of WA (1999)

Wildflower Society of WA, Nth Suburbs (1998)

Wildlife Preservation Society (1998) World Wide Fund for Nature Australia (1999)

#### Individual Members

Gail Abbott, NSW (1998) Dr David Aldous, Vic (1998) Jan Allen, NSW (1997) Ian Anderson, ACT (1999) Benjamin Armstrong, NSW (1998) Richard Arnett, NSW (1998) Margaret Bailey, NSW (1998) Greg Bain, Vic (1998) Bee & Bill Barker, Vic (1998) Tim Barlow, Vic (1999) Robert Barnes, NSW (1997) Douglas Beckers, NSW (1998) Brett Beecham, WA (1998) Margaret Bell, NSW (1998) Stephen Bell, NSW (1997) John Benson, NSW (1999) Jocelyn Bishop, NSW (1998) Dr Robert Boden, ACT (1998) Elizabeth Boesel, NSW (1998) Dr Barbara Briggs, NSW (1998) Dr AHD Brown, ACT (1998) Douglas Brown, Tas (1998) Louise Bull, NSW (1998) John Burdett, ACT (1999) Dr G Burrows, NSW (1999) Geoff Butler, NSW, Hon. Life Member Geoff Carr, Vic (1998) Calder Chaffey, NSW (1999) Irene Champion, Old (1998) Anne Coates, WA (1998) Fiona Coates, Vic (1998) Anne Cochrane, WA (1998) Daniel Cole, NSW (1998) lan Cole, NSW (1999) Ben Correy, NSW (1998) Russell and Sharon Costin (1997) Jennifer Cowie, NSW (1997) lan Cox, NSW (1998) Isobel Crawford, ACT (1997) Simon Cropper, Vic (1998) P. Cruickshank, NSW (1997) Louise Cusack, NSW (1997) Paul Davies, NSW (1998) Richard Davies, SA (1997) lan Denley, Qld(1998) Michael Doherty, ACT (1998) Ross Doig, NSW (1999) Wendy Dossetor, ACT (1999) Steve Douglas, NSW (1998) David Duncan, Vic (1998) David Eddy, ACT (1998) Geoffrey T Edwards, Old (1997) Alison Elvin, ACT (1999) Elizabeth Fenton, Vic (1997) Paul Field, Vic (1998) Donna Fitton, NSW (1998) Lance FitzGerald, NSW (1998) Paul Foreman, Vic (1998) Julie Foster, ACT (1997) Bill Gale, WA (1999) Elizabeth George, WA (1999) Helen Glazebrook, NSW (1997) Kaye Glennon, WA (1999) Roger Good, ACT (1999) Dave Gordon, Old (1999) Dr Janet Gorst, Qld (1999) Robert Gourlay, ACT (1997) William Grattan, NSW (1998) Barrie Hadlow, ACT (1998) Gwen Harden, NSW (1998) Katherine Herrington, ACT (1999) Bob & Noeline Harris, NSW (1998) Marion Hawley, NSW (1999)

Tim Hayes, NSW (1997)

Els Hayward, Tas (1999) Dr Helen Hewson, NSW (1998) Garth Hockly, Qld (1998) Patricia Hogbin, ACT (1997) Keith Holmes, NSW (1998) Irene Horneman, Old (1999) Elsie Howe, NSW (1998) John T Hunter, NSW (1999) S. Ip. NSW (1997) Greg Jackson, NSW (1998) Amanda Johnson, NSW (1999) Morton Kaveney, NSW (1999) Kerry Kirk, NSW (1998) Van Klaphake, NSW (1999). Heather Knowles, Qld (1998) Bernie Kocur, NSW (1997) Patty Kolln, NSW (1998) Jill Landsberg, ACT (1998) Peter Lawrence, Qld (1998) Gary Leonard, NSW (1999) Steven Leuver, NSW (1997) Tony Lewis, NSW (1998) Gordon Limburg, NSW (1999) John Litchfield, ACT (1997) Vicki Long, WA (1999) Bill McDonald, Qld (1999) Tein McDonald, NSW (1998) Lori McGarva, NSW (1997) Alex Mackenzie, NSW (1998) Joanna MacLachlan, NSW (1998) Jan McNicol, Qld (1998) Bob Makinson, ACT (1997) David Mason, NSW (1997) Maria Matthes, NSW (1997) Lyn Meredith, ACT, Hon. Life Member Adam Merrick, Vic (1997) Tammy Mills-Thom, NSW (1998) Geoffrey Mitchell, NSW (1997) Brian Mole, Vic (1999) Rosalind Moore, NSW (1998) Lorna Murray, Old (1998) Daphne Nash, ACT (1997) Sharon Nash, NSW (1998) Robyn Newman, NSW (1998) Nan Nicholson, NSW (1999) Henry Nix, ACT (1998) Brett O'Donovan, NSW (1998) Peter Olde, NSW (1998) Samantha Olson, NSW (1998) Joan Overeem, NSW (1997) Dr. Bob Parsons, Vic (1998) Hugh Paterson & Francoise Matter, NSW (1998)Gordon Patrick, NSW (1998) Travis Peake, NSW (1998) Judy Peet, NSW (1997) lan Perkins, NSW (1999) Plantique, NSW (1998) J Playford, Qld (1999) Brian Quinn, Vic (1998) Peter Ray, WA (1998) Ruth Readford, NSW (1998) Phil Redpath, NSW (1997) Bonni Reichelt, Old (1998) Mark Richardson, NT Hon. Life Member

Mark Robinson, NSW (2000) Steve Row, NSW (1998) Esma Salkin, Vic (1998) Sarah Sharp, ACT (1997) Mark Sheahan, NSW (1996) Darren Shelley, NSW (1998) lan R Smith, Old (1997) Marilyn Smith, NSW (1997) Diana Snape, Vic (1999) Fiona Spier-Ashcroft, ACT (1997) Marilyn Sprague, Vic (1997) Debbie Stevenson, NSW (1998) John & Irene Story, Qld (1998) Jonathan Streat, NSW (1997) Joe Swartz, NSW Hon. Life Member Jane Tarran, NSW (1998) Nicki Taws, ACT (1998) Technical Librarian, Qld (1998) Elaine Thomas, Vic (1998) Lyn & Merle Thompson NSW (1997) David Tierney, NSW (1998) Kylie Treble, Vic (1998) Bindi Vanzella, NSW (1998) Brenda Venton, NSW (1998) Dierk von Behrens, ACT (1999) Warner Wait, Tas (1998) Josephine Walker, NSW (1997) Robert Wallis, Vic (1999) Bruce Wannan, Old (1999) Chris Ward, NSW (1997) Sylvia Webber, NSW (1997) Matt White, NSW (1997) John Wilkes/Ros Cornish, NSW (1998) Jann Williams, NSW (1999) Mark Williams, NSW (1998) J & A Willinck, NSW (1999) Anne-Marie Wilson, ACT (1999) Brigitta Wimmer, ACT (1999) Geoff Winning, NSW (1998) John Wrigley, NSW (1998) Martin Zierholtz, NSW (1997) Toive Zoete, NSW (1998)

#### Donations Received from:

John Benson (1998) John Delpratt (1998) Bill Gale (1999) EA George (1998) Janet Gorst (1998) Marion Hawley (1998) S. lp (1997) Gary Leonard (1998) Steven Leuver (1997) Gordon Limburg (1998) Bill McDonald (1998) A Mackenzie (1998) Henry Nix (1998) Plantique (1997) Ruth Readford (1997) Mark Williams (1998) Martin Zierholtz (1997) Toive Zoete (1998)

Lill Roberts, Vic (1999)

Brett Robinson Old (1997)

Geoffrey Robertson, NSW (1998)

Robert & Debra Robertson, ACT (1998)